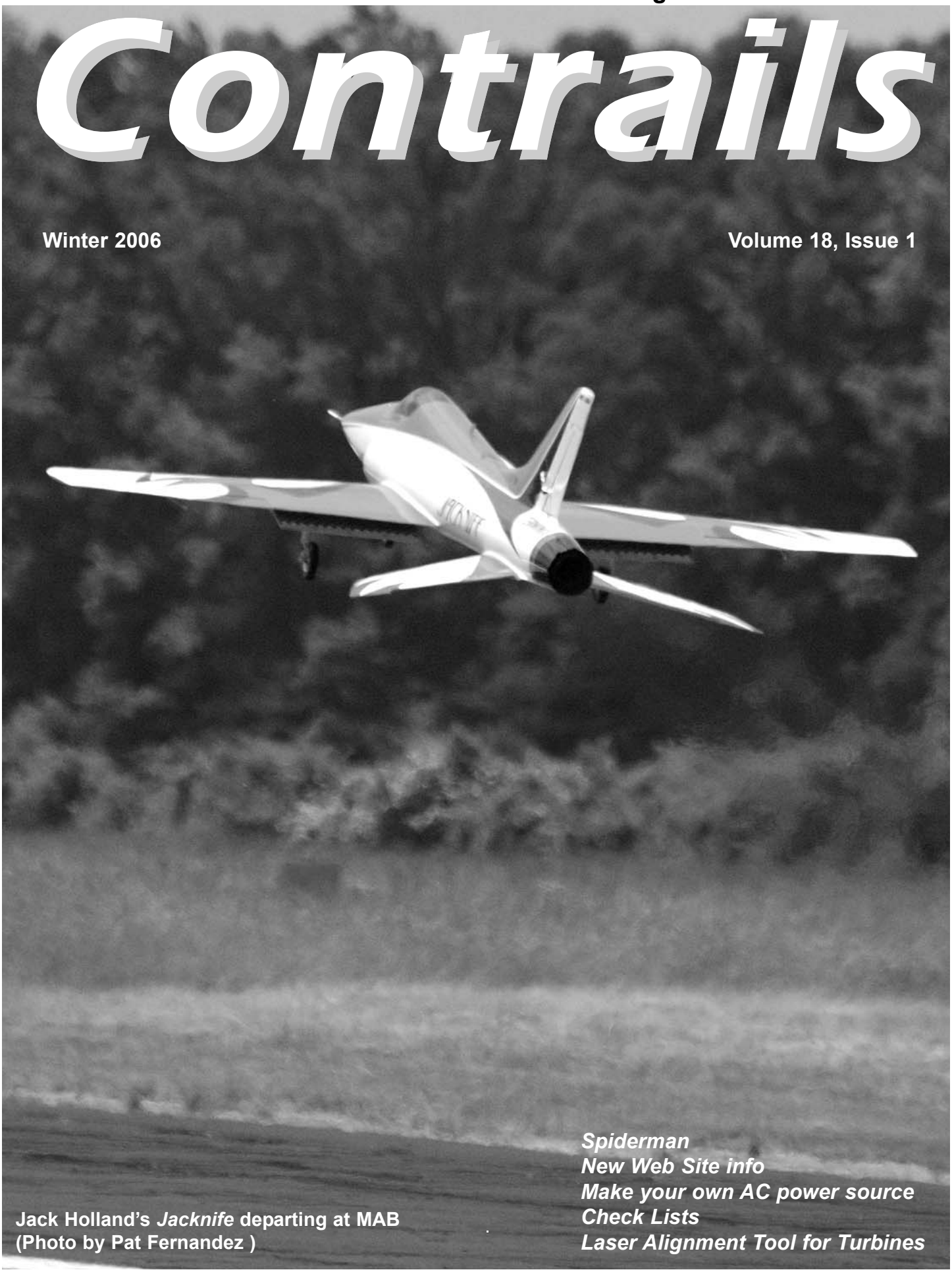
Newsletter of the Jet Pilot's Organization

Contrails

Winter 2006

Volume 18, Issue 1



Jack Holland's *Jacknife* departing at MAB
(Photo by Pat Fernandez)

Spiderman
New Web Site info
Make your own AC power source
Check Lists
Laser Alignment Tool for Turbines

From the Editor

Welcome Back!

As we embark upon a new year, you will find a few changes in/with your JPO. We have three new District Reps, we have a new website, and as you can see to the right...we have money in the bank!

Keith has worked long and hard to upgrade the website, and deserves to hear from you...both positives, and your dislikes. He can't "improve" it if he doesn't hear your concerns.

While I'm on the topic of the website: Keith has the site open to anyone for a while, but a few weeks from now, there are portions that will become "Members Only." To access these parts of the site, you will need to know your JPO member number. The number is on the card Ed sends us each year, and which we promptly misplace, so I am placing your number on the mailing label for this issue....Now you have two different forms and ways to misplace your number!

As you can see from my photo, the calendar tells us it's Winter...and building time. But, for most of us the winter has been mild, so in this issue we have several "how-to's" that we can all find handy.

Please enjoy this issue, and as we get into flying mode, please share your flying photos and stories with all of us!

Greg

Treasurer's Report — Ed McElvy

TREASURY REPORT

Beginning Balance		$5,503.00
Income		
Membership	17x$25.00	$425.00
Pay-Pal	7x$23.97	$167.79
October Expenses		
Bank Charge	$18.00	
Trophies	$55.95	
Sub-Total	$73.95	
November Expenses		
Bank Charge	$18.00	
Fall *Contrails*	$775.85	
Sub-Total	$793.85	
December Expenses		
Bank Charge	$18.00	
Stamps	$74.00	
Sub-Total	$92.00	
Total Expenses	$959.80	
Balance as of January 1, 2006		$5,135.99

President's Report — Steven Ellzey

Happy New Year!

At the first of the year, we had some changes in the officers that work to support you. In District V, Dee Miller is replacing Gordon Dickens, in District VII, Tom Ryan is replacing Art Gajewski, and in District III Mark McCracken is replacing Dave Malchione. In Mark's case he came in too late to get on the ballot, and as such had to be appointed by the other officers. Please say hello to the new guys if you meet them out flying.

At this time we do not have a representative for District IX. If you live in the area and would like to help out, let us know.

Jets in the Experimental Class

It is now a done deal: turbine-powered models can now be flown in the experimental class. The basic approach was to go for "55 dry" and no more than 75 pounds wet. This represents a 20 pound increase in max takeoff weight, which should allow some of the twin-engine guys to have room for their fuel. We also asked that the prohibition against experimental-class models in competition be removed, and got that, too. However, the competition rules still set the weight limits allowed for specific events, so we will need to spend some time with the competition boards to see if we can get that changed.

With this change comes another need, good inspectors that know jets. All models that fly under the experimental rules must be inspected by an AMA-approved inspector. Many feel that over time there will be more jets in the experimental class than props, so there will be a need for more inspectors that know what to look for on a jet. If you have been modeling for some time, and have a reasonable technical background, you might want to look into applying to become an inspector. There is only a little bit of paperwork and a simple test required, about the same effort as becoming a CD, so if you can - help your fellow jet jocks out and sign up.

Is anyone listening out there?

When it comes to discussions on the Internet, the answer is yes. A few months ago, the AMA contacted us about what appeared to be a fairly major violation of the safety code by a turbine pilot. The decision had pretty much been made that his waiver was to be revoked. We look into it, talked to others in his area, and tracked the "violation" down to a posting on the internet that was intended as a joke; however, it was not obvious that it was intended that way. Had the posting been serious, the wavier would have been revoked, a decision I would agree with. As it turned out, we reported our findings back to the AMA with our recommendation to close the issue, and at this time it appears that the AMA has accepted our recommendation. Bottom line: if you broadcast it to the world, don't be surprised if the world hears it, and if some take you seriously.

Honesty and Integrity

If it doesn't feel right, it probably isn't. Honesty and integrity means as much in your modeling life as it does in the rest of your life. Doing the right thing may not always seem to be as much fun, but in the long run it works out better.

Steven

Vice President's Report — Keith Sievers

Last quarter, I did an article on the first-half of the Yellow Aircraft F15 build. Unfortunately, this project was put on hold in favor of two other efforts - the new JPO website and a Composite ARF *Lightning*. Hopefully, I will get back the F15 in time for the next *Contrails*.

New Website is Launched!

For those of you who have not visited the JPO website in some time, now is the time to visit. Our URL is: **http://www.jetpilots.org.**

There are a number of new features. First and foremost is the Proposals section. If you frequent the internet sites, you will know that one of the most common complaints about the JPO is our limited ability to get feedback from the jet community on proposals we are working on with the AMA. With the new Proposals section of the website, we will be able to publish proposals and provide members with a vehicle for real-time feedback.

Contrails is now online, with issues back through Fall of 2004. Each issue is published in Adobe PDF format, so you can download and save each issue electronically.

We are also building a Knowledge Bank with articles from some of the leading jet-modelers in the country. Content is rather limited at this point, but is building. We welcome submissions from anyone who has a particular area of expertise and will take the time to share this information with others.

The on-line *Contrails* and Knowledge bank are cornerstones of the Members section of the website. Additional areas within the Members section include a members photo gallery, member listings, and the Safety Center. This latter area includes data from the JPO risk management initiative, an insurance primer and an excellent article on jet maintenance written by Craig Gottschang. We are also researching the addition of a JPO forum that would enable real-time discussion areas for each of the districts and a public forum for discussion of JPO proposals, or AMA rulemaking. Stay tuned.

The site also features pages with contact information for each JPO District, a bio of the JPO officers, an Event Calendar, and Jet Links. There is a section with various JPO documents, including an event Syllabus and JPO Trophy application. Last but not least, you can join or renew your membership on the site. Payment can be handled by check or by a convenient PayPal link.

Please visit the site and if you have comments, hit the "contact us" button on the Home Page and send suggestions or submissions.

Composite ARF Lightning

Several months ago, I sold my trusty KingCat to a friend who had to have it, and ended up looking for an ARF project. The *Lightning* caught my eye, due to its size, sleek outlines and a number of positive reports from friends that had seen and flown prototypes at the **Georgia Jets** meet last fall. I was also attracted to the price, which at $4000 for plane and gear, is pretty competitive for a plane of this size and completeness. The plane is now built, but I have yet to fly it, as I am waiting on the gear to arrive. For now, here are a few observations and thoughts on hits and misses I have found for those of you that are thinking about the *Lightning* as a future project.

The kit is an impressive size, dwarfing my Yellow F15 (see photo), and the vertical stab is only slightly smaller than the entire wing panel on the *Eagle*. The glass and paint is very good in my opinion, and the parts fit was generally good.

Vice President's Report (cont'd) Keith Sievers

This is an ARF in every respect. Outside of the work required to install air, fuel, engine and electrical systems, the only real construction is installing the main hatch and gear doors. These are hinged with a unique method using wire through plastic tubes that are attached to the door. While I raised an eyebrow at first, it was very easy to install and align correctly. The vertical stab and fin are basically complete, and after installing servos and linkages, simply bolt on to the plane. The same holds true for the wings, which have all alignment pins and spar supports installed and aligned at the factory. The manual states that you can build this plane in three to four days and I think if it were the second time through, this would be achievable. As a first-time builder, it took me double these hours.

The primary decision you will need to make is the engine. The bypass is large and will take top-end turbines, right up to the P200 class. The C-ARF reps warned, however, that the aft engine position relative to CG would mean a significant amount of nose weight for larger turbines. After some thought, I decided to try the Artes *Rhino*. At only 3.7 pounds all up weight, I watched it put out 37.4 pounds of thrust on the dyno, and this thrust-to-weight ratio seemed ideal for this aircraft. Ultimately, while I am a confirmed JetCat fan, I didn't feel the *Titan* would be enough and the P180 brought a significantly higher weight and fuel consumption with it. I have several friends operating *Rhinos* with great success, so I am looking forward to getting to know this engine.

The fuel system is another hit. The two main tanks, with a capacity of 2.9 liters each, come assembled, including the aluminum tank collar. A third optional tank of 2.1 liters is available, which, with the 300 ml hopper tank, allows total fuel capacity to top 8 liters. The main tanks are actually locked into the fuse by the wing spar, which is a nice design feature.

One other hit in this kit is the instruction manual. It is really one of the best I have used, featuring a very complete text and a number of useful hints. A series of color photos supplement the text. If you want a very good overview of the detailed build sequence, the manual is available on line at the Composite-ARF site.

There aren't many misses I have found with the kit. Some of the servos are in locations that are hard to get to for mounting and set up, but with a little patience, I worked my way through these. The tail cone was a bit cheesy, but I used that as an excuse to try my hand at flite metal, and I was happy with the result. The biggest issue is that the landing gear, parts of which come from Germany and Australia, still have not arrived after nearly three months. Perhaps the manufacturing process will get caught up with the orders but I would suggest you explore this issue with your Rep if you are in a hurry to get airborne.

The C-ARF site claims a weight of around 14 kg, which converts to 31 pounds. My plane, without gear, weighs in at 28 pounds, so 31 pounds is probably very close. Three Duralite 4000 ma packs will add a pound and a half, and I have not yet decided on the cockpit kit. I have played a bit with the Bluebox F15 *Eagle* cockpit and it looks to be a possibility with minimal modifications, but it would add another two pounds. I am going to wait on CG measurements before I make this call. Worst case, I think the plane will come in between 34-35 pounds dry. 1.6 gallons of kerosene weighs 10.8 pounds, so takeoff weight will be in the low-to-mid forty pound range, depending on the cockpit/pilot choice.

More on the flight report next time.

Keith

District I Report

Ray Davis

Connecticut
Maine
Massaschusetts
New Hampshire
Rhode Island
Vermont

"Greetings from District I" Yep, me again! This body is still warm, and I'm apparently sentenced to this esteemed office for another term, so I pledge my best....

Well, it's now the dead of winter here in the northeast, with little R/C-flying of the jet variety going on. The last outing for me was with my little Alfa MiG-15 EDF on New Years Day. Obligatory...as President of one of the two R/C clubs on Cape Cod, I gotta be at the annual Chilli Fly every January 1, no matter how bad the weather. This year...cold and dismal...but always plenty of hot coffee, donuts, and of course, homemade chili. Oh yeah - ya gotta fly something...so convenient and easy propping over that little EDF...just hit the switch! The last time I flew a turbine was in early October with Jeff Lyndz down in Woodstock, CT. We both had our *Eurofighters* at the small airport there...which brings to mind - just where do we fly jets here in District I? That's a question I get asked all the time.

I'm sure some of us have at least limited opportunities on a local basis; I could fly at my Club field year-round if I were inclined...and had skis attached! It's smooth grass, 425' long, but is sometimes marginal even for my *Eurosport*...and with my Avonds *F-16* it's gotta be a near-perfect approach, with a headwind, to avoid the high grass at the end....and damaged gear. Jeff gets out to Woodstock occasionally when the local operator and R/C club permit it, but I know both of us would enjoy company with the proper notice and the right models. Give us a call in a few months! Maybe the closest year-round available jet activity is Floyd Bennett Field in Brooklyn (technically in District II), otherwise, it's the organized events where we do most our jet flying in District I. Not nearly enough to suit most of us, I know, but they are what we have and are all the more precious for their scarcity!

May is empty unless we travel to Fentress, VA, so the first real opportunity for many here is the **Bay Of Quinte** event, in Canada, mid-June. Except for a cancellation a few years ago, Quinte is the longest running event around; a big, wide-open site, the nicest hosts and a great Saturday evening picnic. You just can't miss the runway (200' wide x 5000-plus long) and you can't miss having a terrific time with our crazy friends up north.

Another opportunity in mid-June is **Bottom Gun,** held at Gardner Municipal Airport in north-central MA. Gardner is the typical 50'-wide asphalt, 3000' foot single runway, small airport strip. **Bottom Gun** is our answer to **Top Gun** - no trophies, no competition, just lots of flying. Open to any model type, and jets are always welcome and appreciated. Unfortunately, BG often conflicts with Quinte, and naturally, the jet guys head north for the big one, given the choice.

At the end of June, the **Master Scale Qualifier** at Gardner is held - again jets welcome. But, ya gotta come at least kinda scale, and then you can fly in Fun Scale, no documentation required. Competition format for flights, but loose and fun...a great way to get your feet wet scale-wise.

In years past, we had Tom Puma's **Green Mountain Jet Rally** in Middlebury, Vermont, but that venue is now apparently lost to model aviation. Middlebury Airport has grown, and the new operators are just not jet-friendly, but I've no doubt Tom will resurface with a new site before too long.

Fortunately, Art Arro and Frank Alvarez initiated **Capitol Jets** last year in the mid-July slot...just north of Albany, NY, and the first meet was a huge success. Kinda borders District I...so we'll adopt it as one of ours! The on-site Aviation Museum boys were our hosts, we had big crowds and they loved us and truly want us back for '06. Somewhat limited airspace last time, but '06 is gonna be opened up - CJ is not to be missed!

Locally, August is empty....gotta travel to Lebanon, PA, or Darby Dan, OH...until the **Maine Jet Rally** in early September at Sanford Airport. Simply the best in the east, much written about...and all true! Ray Labonte and Antony Parchment, the finest CDs to run an event, anywhere.

Last year, our new District I AMA VP, Andy Argenio,

District I Report (cont'd) — Ray Davis

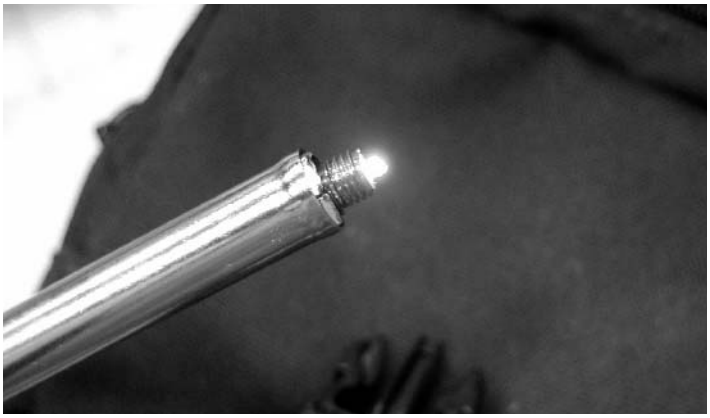
initiated a **Fly-in at Gardner** in September...again, jets welcome. Of course, we were all at Sanford that weekend...this year communications should be improved and we'll be able to do both!

Everyone happy with the new Waiver certificate? Pretty cheesy, I think! Amy Wilson signed the letter; so I gave her a call and was asked to "put my ideas on paper..." So, you can bet I did...and you should too. A notation on the AMA Membership card, perhaps a small, non-transferable, sticker/whatever...just so I don't have to unfold and re-fold that third-sheet of cheapo paper again in '07. Plenty of room next to the CD/Leader Member/whatever ink, which would probably save a tree and some time and money at Muncie, too.

The last time I flew the *Eurosport* I was having a dickens of a time getting it started. Between a loose remote plug fitting, maybe a bad Quick-Klip, and a fast depleting ignitor battery, I was lucky to get it lit for the last flights. I had read about the RCATS Smart Lithium Glo Driver on the rc-jets list, and so I got one for

Christmas. ("Thank you, Ray...")

Reputed to last the season on one charge, keep it glowing underwater, etc...but the best for me was that the current can be adjusted. Naturally, it adapts to varying plug current requirements, but additionally, a tiny little pot inside can be adjusted (maybe voids the guarantee, I dunno...) for any degree of glow you wish. Check the following picture...now that's a Rossi R-8 that will light anything!



I've got time on my hands, I guess, but no repairs this winter and no new turbine project for '07; as I've decided to completely go through my shop and files, and really go over the engines, airframes and systems that I have. I'm laying low after a little hand surgery anyway...got my big-screen plasma TV and settling in...no pressure...but will be chomping to go when the good weather arrives!

Things are good - *Your* JPO is strong, growing, and listened to in Muncie. Support it, send in your dues, and collar a fellow pilot to join! And, things are better than ever for jet pilots in District I 'cause we've got good places to fly, are flying wisely, and we're all good buddies knowing we're in this together. Lastly, tired of 'Ray's World' every issue? Well then, send me some news and pictures and watch this space...you'll be famous!

Ray

District II Report

Art Arro

New Jersey
New York
Europe

The start of the New Year provides a good event marker to reflect upon 2005 and plan for the future 2006 year. This District II Report will follow this format.

Our District, composed of NJ and NY, has a large population base but we are restricted by jet-suitable flying sites and the growth of a model-jet pilot contingent. Over the past two decades, only the **Big Apple Jet Rally** in Brooklyn, NY has been held continuously. There have been a couple of jet events held at Lakehurst, NJ but these were few and far between, so last July, I hosted the **Capitol Jet Rally** in upstate NY to help fill the void. The event was a resounding success and drew many local jet pilots as well as pilots from neighboring Districts I and III along with Canada. We are planning to continue the Capitol Jets event in 2006 with expanded flying facilities, both laterally and vertically. Most likely, Frank Alvarez will CD this event, and it will be held during the mid-July time frame. Details are still in progress, but check the jet-event calendar on our new JPO website **http://www. jetpilots.org.** for updated information on this and other events.

Last year, we had several turbine-waiver sign-offs performed by Chris Zonio and myself. My local R/C club no longer has access to the expansive runways at Griffiss AFB, and these turbine check-flights are being conducted at Chris' home field near Binghamton, NY. Contact Chris and/or myself for details on scheduling a turbine check ride. Our contact information is in the AMA roster of accepted and designated CDs for waiver sign-offs; AMA Doc # 510-K on their website **http://www.modelaircraft.org**.

Also, 2005 was the first year for turbine-waiver recertification, and the PARCS club opened the Floyd Bennett Field in Brooklyn, NY for several jet get togethers at the end of the 2005 season. Waivered turbine-pilots who did not complete their 20 logged flights within a 2-year period, or failed to submit AMA Form 510-E to AMA HQ by the December 15 deadline would have to requalify for their turbine-waiver. Actually, the current requirements are simpler than before, and buddy-boxing a turbine jet is now permissible. The flight declaration, with a 150 MPH model, ground school and written exam have been deleted from the turbine-waiver requirements, and only a simple flight-test, witnessed by another waiver-holder and a waivered AMA CD, is required. All signatures have to be notarized, and the paperwork submitted to AMA HQ for processing. Requalified or new waiver-holders still have to recertify by completing 20 flights within a two-year period for waiver renewals. This is a one-time requirement.

JPO is still tasked by AMA to evaluate all applicants seeking to be AMA-Accepted Designated Contest Directors for Turbine-Waiver Sign-Offs, or Turbine CDs (TCDs). While TCDs are not required for fixed-wing turbine-waivers, they are mandatory for controline and rotary-wing turbine-waiver sign-offs. AMA has asked both the ukie and heli Special Interest Groups (SIGs) to take on this task, but, so far they have declined. JPO is also bound by an AMA ruling to conduct these evaluations until alternate SIGs can be found. Applicants must pass their paperwork to their respective District Reps for evaluation, and forwarding to me. After a one-week period, if no negative issues are raised, I send the paperwork to AMA HQ with a recommendation for processing to become a TCD. Negative issues are investigated directly with the applicant and his/her references.

Finally, in 2005, I have been involved with several jet-related issues for the AMA. These have been investigated and our findings submitted to AMA for their action. JPO is looked upon for our expertise in model-jet activities and we provide AMA with our guidance and recommendations.

Looking ahead to 2006, I see continuing growth in model-jet activities with a strong focus on electric ducted-fans (EDFs) and turbine power. Ray Davis, over in District I, has been involved with EDF to complement his turbine-powered scale jets. Recent advances in EDF technology, including Li-Po batteries, have made this power source a viable alternative to the traditional internal combustion-powered ducted-fans. I predict rising EDF activity due to these advances and the shortage of turbine-suitable flying sites here in the northeast.

District II Report (cont'd) — Art Arro

The '06 jet event calendar is being filled and again I advise everyone to checkout our new website for further details.

I'll close on this note and wish everyone a Happy (and safe) New Year and look forward to meeting many of you at jet events during 2006 and beyond.

Art

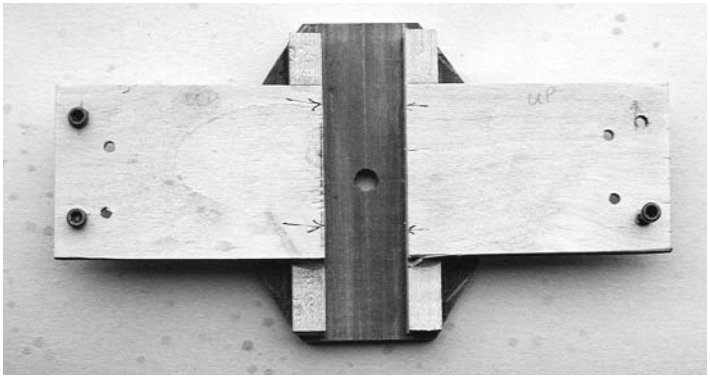
Turbine Alignment Tool.

The positioning and alignment of a model turbine is critical, especially with installations requiring a tailpipe to direct the hot exhaust gases out of the model. Any misalignment may result in the impingement of hot exhaust gases on the tailpipe, causing distortion and a possible burn through. Jet model designers usually engineer the proper alignment in their plans and kits but some type of tool is necessary in converting a ducted-fan installation to turbine power or in the design of your own jet. This article describes a simple alignment tool which can be built in a single evening at a cost of less than $10.

The heart of the tool is a mini laser-level P/N CEN-TECH 90725 available from Harbor Freight tool outlets. This level was purchased on sale for $7.99, including batteries and a mini tripod. The regular retail price is about $15.

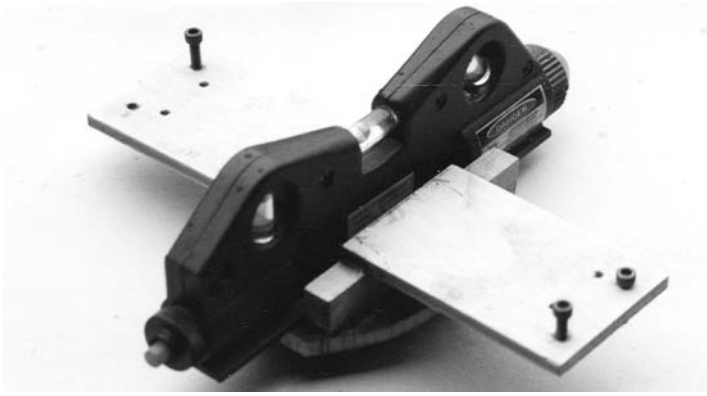
The laser level and its Instruction Manual

The rest of the alignment tool consists of a simple fixture made from aircraft plywood, which replicates your turbine mounting straps or bracket. It is important to select truly flat pieces of aircraft ply to ensure accuracy of the alignment tool in use.



This shows the plan, or top view, of the fixture without the laser-level installed

The level incorporates a ¼ x 20 threaded hole on the bottom surface which is used to secure the fixture to the level with a standard nylon wing-mounting bolt.



The laser and fixture ready for use

Note that the bottom ground surface of the level is exactly ½" (12.5mm) below the laser beam. This can be verified by placing the level on a flat surface and measuring the height of the beam above this surface. I used a 48" carpenter's level to determine the laser beam height.

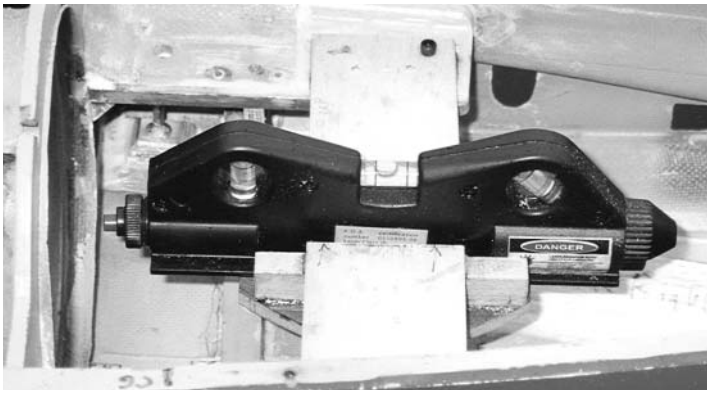
The next step is to determine the turbine centerline in relation to its mounting straps or brackets. Note that Jet Cat turbines have a vertical offset, which must be accounted for. The objective is to have the laser beam aligned with the centerline of the turbine axis, with the turbine installed in its mounting straps or bracket.

The lateral alignment is determined by careful measurements and keeping everything square with good guidelines. When all is in alignment, you can assemble the fixture using CA or epoxy adhesive.

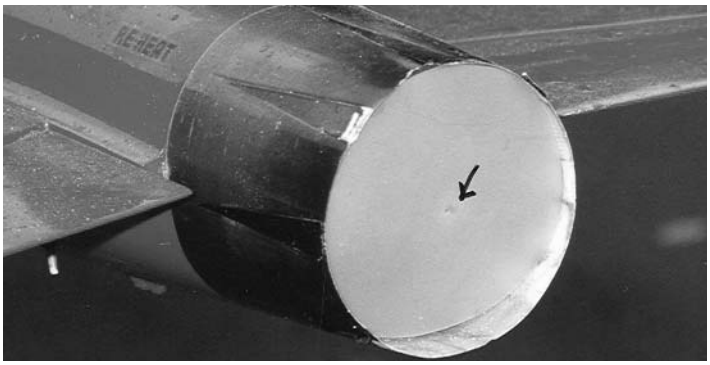
District II Report (cont'd) — Art Arro

The turbine mounting-bolt holes are now measured, and the fixture drilled accordingly. For a RAM installation with the cradle mounting-bracket you can just invert the bracket onto the fixture and lay out the bolt pattern, but be careful not to spring the bracket, which would change the pattern position. Verify the pattern layout before drilling any bolt holes. I use #6 or #8 bolts for turbines up to 24 lbs thrust and #10 bolts for larger turbines.

When the fixture is finished, you will mount the laser level to the fixture using a standard ¼ x 20 wing mounting-bolt as shown below.

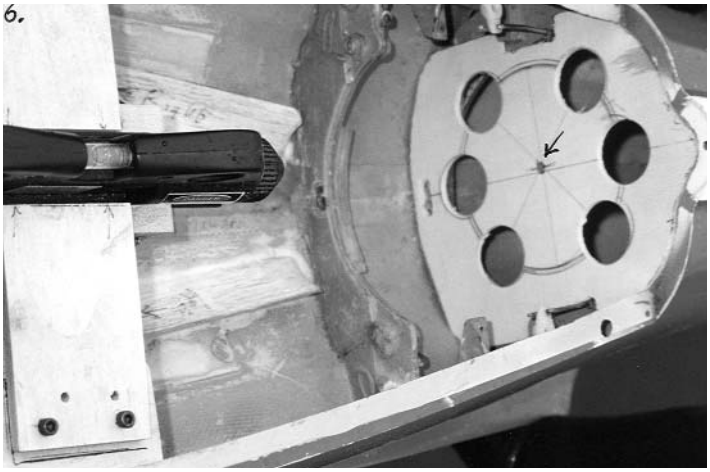


The use of the tool is described next. You start at the aft end of the model by carefully placing a translucent material such as frosted Mylar or tracing paper within the exhaust nozzle of the model. The alignment tool is positioned in the approximate location of the turbine within the model and the laser turned on.



The two photos above show the laser-level and fixture in the model (the goal is to place the laser spot directly in the center of the frosted Mylar, as shown by the arrow). Do NOT look directly into the laser beam! The turbine mounting-flanges can be spot glued in place and followed up with a generous application of slow-cure epoxy, preferably with milled fiber added to the mix. After the epoxy is cured you can recheck the alignment and shim as needed. The turbine mounting-bolt pattern is then transferred to the flanges, and the flanges drilled for blind nuts or threaded inserts.

The next step is to determine the center of all intervening formers or bulkheads between the turbine and the model exhaust-nozzle. Fit each former in place and reinstall the alignment tool in the turbine mounting-position. Turn on the laser and mark its beam position on the former. This is your center point for determining the tailpipe aperture and location of any cooling holes.



The arrow in the photo above shows a former with the annotated arrow on the laser spot or center of the cutout. The former is then removed from the model for finishing the cutouts. I prefer a slightly loose fit of the tailpipe to the former to allow for lateral movement of the tailpipe during turbine operation. I continue this process until all formers have been bored and routed for cooling and tailpipe clearance. For this particular installation, I used a U-shaped former to cradle the junction of the funnel and the tailpipe. All of the formers are secured in place by spot gluing with CA and applying a final fillet of slow-cure epoxy.

These photos illustrate the installation of a T-500 turbine in a DL Aero *Cyclone* fan jet which has been converted to turbine power. The outer tailpipe runs cool to the touch with no distortion of the inner pipe.

I trust that this alignment tool will be useful in designing or converting existing models to turbine power.

District III Report

Mark McCracken

No Photo Available

Ohio
Pennsylvania
West Virginia

We are now in the middle of our winter season, although temps here in Northeast PA are forecast to be around 58 degrees. I am sure most of us are in the middle of building something new for the 2006 season.

As for myself, I have a Facet 2300 with a P-120, a Skymaster *Hawk* powered by a P-80, and on the building table I have a new Composite-Arf *Kangaroo,* also powered by a P-80.

If you are asking yourself, "Who is writing this article in the District III section of *Contrails*?" let me introduce myself. My name is Mark McCracken, and I am your new District III representative. I live in Wilkes-Barre, PA, and have been a member of the AMA for 20 years. I started flying ducted-fans about 10 years ago, and saw my first turbine about 4 years ago... and I was hooked. Every other month, we have a small non-formal event at a local airport where we fly our turbines, called **Jets over Tunkhannock.** This is open to all turbine-waiver pilots.

In the past several issues of *Contrails*, District III has been absent. In the future, I will have an article every issue. If anyone who is in District III has an event you would like published or is planning an event, contact me with all your info and any pics you may have.

With the season soon to start, I am planning to attend the **Fentress Jet Rally** in Virginia Beach, VA on Memorial Day weekend. This will be my first event of this year, and depending on my work load, who knows where I might show next?

Some of the events I attended in 2005 were **Liberty Bell**, **Capitol** and **Fentress**. I have met many friends and I hope to make more this coming year.

Please feel free to contact me at any time at trioval00@verizon.net.

Mark

Pat Fernandez provided a few photos for our viewing pleasure.

Sam Snyder poses with his P-60 powered scratch built built U-2 at GSW

Sam's U-2 departs on another flight

BVM F-100 at GSW

District VI Report — Roger Shipley

Illinois
Indiana
Kentucky
Missouri

DISTRICT VI REPORT
January 2006

The '06 season is really looking good for the Midwest:

Jets Over the Heartland: June 22-25*
CDs: Tim Redelman & Greg Hilerbrandt,
Kentucky Jets,Lebanon, Ky: July 6-9
CD: Lewis Patton
Windy City: July 19-23
CD: Jeff Anderson
Missouri Valley: August 4-6*
CD**:** Don Reger
Rushford Jets: August 18-20
CD: Dave Dennison,
Heart of Ohio: August 24-27*
CD: Terry Nitsch
Mt. Vernon, Ill: Sept. 15-18*
Spiderman: Week of September 25*
CDs: Tim Redelman & Greg Hilderbandt,
Windy City #2: October 5-7
CD: Jeff Anderson
Superman: October 4-7
CD: Jerry Caudle, Location: TBA
* These dates are to be confirmed, the other dates are firm.

Now...on to some **Spiderman** pictures!

Paul Blanchard's New F-5 *Bullet*

The SkyMaster Crew fly what they bring, and they bring a lot of them. They are a show all by themselves

The Morning and Derego duo really wrung out their Skymaster F-22

Is Dennis Crooks as laid back as he looks?

District VI Report (cont'd) — Roger Shipley

The AMT Crew were there in numbers with their owners, spouses, friends, offspring and customers...and I was delighted to again interact on many fronts with Hahn Jennikens from Holland - the designer of the AMT turbine. What an unsung guy!

Bob Oliva and Don Winn; now here is a serious team humming their AMT-powered F-18

Lewis Patton with his new AMT-180 powered *Hawk,* a very stable flyer

Ralph Braun's A-10 ready for flight

Keith with his new CJM *Talon* - now this is a classy finish!

Brad Long RETURNS! I'm just delighted that he's back on the flight line with his *Bandit*!

Guest Columnist — Mike Weidner

If you're like me, you have probably accumulated a couple of quick chargers that are powered by a 12V car or gel-cell battery. They work great when you're out at the field - and you quickly get things charged up again for a long day of flying. But what if you are in the shop and want to use your charger's capability to cycle some new battery packs or something else? Most of us don't have a freshly charged auto battery laying around close at hand, let alone in our shop. What to do?

Several months ago I was frustrated by not having a 12V auto battery in my shop to connect to my latest whiz-bang charger.

I logged on to my PC and started drilling around on the Web and found this article - **http://web2.murraystate.edu/andy.batts/ps/powersupply.htm** - which inspired me to cobble up a PC power-supply to meet my needs. While it is definitely not a detailed, step-by-step article, there is sufficient information there to enable you to figure it out for yourself. The pictures that accompany the article explain a lot, and there's also a handy URL-linked table in the article that shows the current handling capability of the various PC supply power ratings.

Google is your friend! I entered: **www.google.com/search?hl=en&q=250W+PC+power+supply&btnG=Google+Search**...and then I then went shopping on the Web for power supplies. After a few mouse clicks. I had a couple of 250W power supplies on their way to me. I should add that many local PC shops - not the "national" brand ones, but the storefront operations run by real geeks, usually have salvaged supplies on hand that they will sell very cheap.

A 250W power supply typically offers 10A of current at 12 Volts DC. This is more than enough for our typical workshop charging chores

While cooling my jets waiting for the power supplies to arrive, a quick trip to the local Radio Shack store had me armed and dangerous with the needed load resistors and binder posts.

If you have the usual 40-Watt soldering iron and some rosin-core solder laying around, plus a few hand tools to strip and bend electrical wire, you can easily accomplish the mods.

The power supplies arrived a few days later, so I popped their tops and went to work. There are a bunch of wires confronting you!! The wires are all color-coded to indicate their respective voltage - they follow the color codes mentioned in the article. A PC needs a variety of voltages, but since we only need 12V to take care of our needs, just carefully snip away what is not needed.

I modified a couple of power supplies in less than an hour, and I'm able to use two chargers at the same time with my handy workbench power supply hardly "seeing" the load! Now I don't have to worry about lugging a car battery into my shop or even worry if it's fully charged.

A photo of my finished product appears below. If anyone is interested in attempting this project but is a bit shy, get in touch with the editor and then I'll walk you through it.

Upcoming Jet Events

Desert Jet Storm: February 4-5, 2006
Speed World RC Club field
Phoenix, Arizona

Florida Jets: March 1-5, 2006
Lakeland-Linder Airport
Lakeland, Florida
CD: Frank Tiano 863-607-6611

Tucson Jet Rally: March 17-19, 2006
TIMPA Field
Tucson, AZ.
CD: Debbie Sherrow 520-744-0633

Central Texas Jet Rally: April 20-23, 2006
ARCA Club Field
Austin, TX www.austinrc.org
CD: Pat Fernandez 512-826-2658

Best in the West: April 20-23, 2006
Coachella Valley Model Air Park
www.cvrcclub.com
CD: Mike Stone 951-845-7039

Top Gun: April 26-30, 2006
Lakeland-Linder Airport
Lakeland, Florida
CD: Frank Tiano 863-607-6611

Mississippi Afterburner: May 18-21, 2006
John Bell Williams Airport
Raymond, Mississippi
www.mississippijets.com

Jets over Leamington: May 27-28, 2006
Ontario, Canada

Blue Grass Jet Jam: June 1-4, 2006
Bowling Green, Kentucky
www.skymacrc.com
CD: Mike Kirby 270-784-9276

DFW Jet Rodeo: June 2-4, 2006
North Dallas RC Club Field

Kentucky Jets: July 6-9, 2006
Lebanon, Kentucky

Ashtabula Jets: July 8-9, 2006
Ashtabula County Airport
Ashtabula, Ohio

14th Big Apple Jet Rally: June 10-11, 2006
Floyd Bennett Field
Brooklyn, NY
CD: Vinny Coratozzolo: vcarat@yahoo.com

Jets over the Heartland: June 22-25, 2006
www.pwrtc.com
CD Tim Redelman

Capitol Jets: July 14-16, 2006
Albany, NY
CD: Frank Alvarez
www.capitoljets.com

7th Michigan Jets: July 13-16, 2006
Grosse Ile Airport
Grosse Ile, Michigan
CD: Burt Eisenburg

Windy City Jets: July 19-23, 2006
Near Chicago, Illinois
CD: Jeff Anderson 630-803-8940

5th Liberty Bell Jet Rally:
July 8-9, 2006
Lebanon, Pennsylvania
www.libertybelljetrally.com

Missouri Valley Jet Rally: August 4-6, 2006
CD: Don Reger

JR T-38 Jet Fest 2006: August 15-20, 2006
Lubbock, Texas
www.wingsmas.com

Rushford Jets: August 18-20, 2006
CD: Dave Dennison

Jets over Whidbey: August 25-27, 2006
www.jetsoverwhidbey.com

Maine Jet Rally: September 8-10, 2006
Sanford Municipal Airport
Sanford, Maine
www.icommercesystems.com/mainejets
CD: Antony Parchment

11th Fresno-Madera Jet Rally: September 22-24
CD: Dave Fusinato: fusinato@direcway.com

Spiderman: Week of September 25, 2006
CDs: Tim Redelman and Greg Hilderbandt

Superman: October 4-7, 2006
CD: Jerry Caudle

Windy City Jets II: October 5-7, 2006
Near Chicago, Illinois
CD: Jeff Anderson 630-803-8940

13th Florida International Jet Rally
November 2-5, 2006
Lake Wales Airport
Lake Wakes, Florida
CD: Frank Tiano 863-607-6611

District VII Report — Tom Ryan

Iowa
Michigan
Minnesota
Wisconsin

Howdy…Let me start off by saying that I'm happy to be the new District VII JPO Representative, and I hope I can add to the great work everyone is doing and has done to get the JPO where it is today.

As for me, I started building stick planes as a boy, and went on to fly as a commercial pilot for some 20 years. I was in and out of modeling and R/C aircraft during that time, and found nothing new to hold my interest...that was until "Jets" were introduced at a level that I could understand. It was the "R/C Jets" that brought me back to R/C modeling. Their realism and performance was impressive. Suddenly, a new interest was awakened and a desire to keep up with the ever changing R/C jet technology took hold. The hook was once again set, and I was all the way back.

I now have four R/C jets - one flying and three under construction. My nickname "Tomcat" didn't arrive from flying as many thought. My mother nicknamed me that, because as a teenager I was always out late and was tagged "a Tomcat" by her...it stuck and fit with an aviation-theme so, to me, that was fine.

My business interests are in film and video production. I have some ownership interest in a Film/Video Production Company, and also fly part-time as an instructor and stand-in pilot for a local corporation - this is on a limited basis, just enough to keep me current on their equipment and sharp in instrument weather.

I am a lifelong Wisconsin resident, with short departures during my commercial-flying career. The weather here in Wisconsin can sometimes be brutal; however with mud slides, floods and fires across other parts of the country; Wisconsin cold doesn't seem to be as bad as I once thought.

I am the AMA-AVP for my area and work with pilots and clubs to help resolve issues and lend a hand when and where possible. I have put on safety programs for clubs in our local area and have been well received when I talk about jets and how they have added to the sport/hobby.

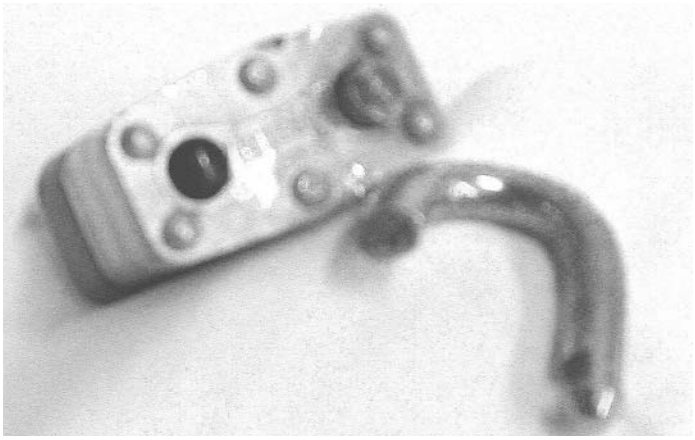
I look forward to attending more jet events when able, and hopefully passing on news and information that you'll find interesting.

Tom

LOCK IT UP OR LOSE IT

New enclosed Haulmark Trailer. New set of Master Locks on both entry doors. The trailer axle chained to a six-foot deep tie-down. Tongue lock in place and an outside night light illuminating the area. All that and the intruders still broke in and managed to get away undetected.

Luckily for me, I removed my Jet just hours before they decided to break in. They knew what they wanted - as they passed over the cheaper prop-planes and looked for the most expensive items to take. They were in and out quickly without anyone seeing anything. When the police arrived *(two hours after I called them*) they found the lock snapped like a twig, no finger prints and no trace evidence left. “How'd they get in so easily?” I wondered.



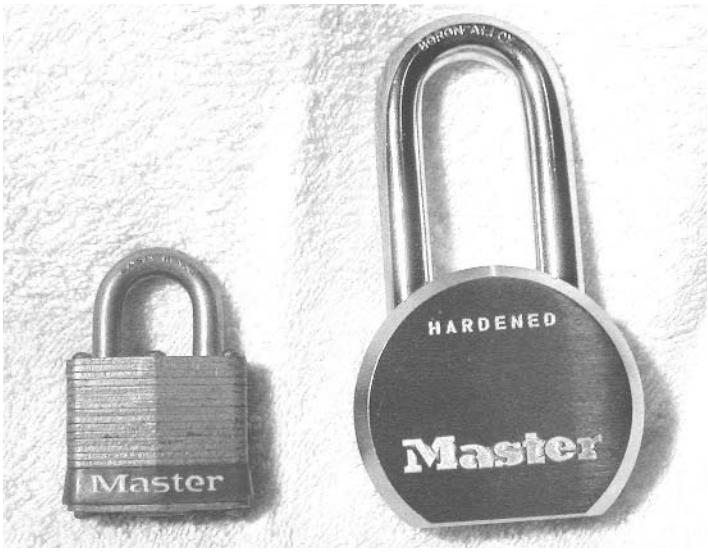
Though not of the greatest clarity: the break is easy to see.

Seeing as Master Lock’s headquarters are here in Oak Creek, WI, I decided to take the lock to them and ask "how is it that a lock with such a strong reputation can be compromised so quickly?" After examining the broken lock, the VP of manufacturing said "they used very large channel-lock pliers, and twisted it until the

District VII Report (cont'd) Tom Ryan

lock snapped. The twisting action of pliers that were two- or three-feet long could easily snap that type of lock with no problem."

"Okay so what's the fix?" I asked. Master Lock makes a "**Contractor Grade**" lock for just this type of situation. Solid-steel and hardened, very resistant to bolt cutters and any large twisting force applied. That's the fix, at least in part! (I now own three of them.)



The lock on the left is the same style as the easily broken one in the previous photo. The stronger, Contractor Grade lock is on the right.

The real question for me was "is this enough to protect my jets and the other valuable support equipment I have in my trailer while I'm away from home, at an event or parked in a motel lot over night? What if I came home late and decided to leave everything as is until morning, is my equipment safe?" The answer was NO. The locks are not enough.

If that's not enough, then what is? Well how about a stand alone 12 volt security alarm system like the one on cars, designed for a trailer and armed with it's own 12-volt battery, a siren, flashing lights, door triggers and even a force trigger (*that's a trigger that will set off the alarm if anyone starts hitting or trying to move the trailer*) plus a blinking red light by the door that says to the would-be crooks **"this system is armed and will sound the alarm before you get in."**

Now then...with this added system are my jets, support equipment and other valuables safe...100% safe? NO! Nothing is 100% safe, but the experts say you're much more likely to scare away an intruder before he gets in by having an alarm. The Contractor Lock also alerts the intruder that this isn't going to be easy and perhaps he'd be better off looking for a softer target. The noise of battering and twisting the lock will trigger the siren and his cover is now exposed, odds are, this would-be thief will be long gone in seconds.

Anything in a trailer is an invitation for a thief, but the harder you make it for them, the better your odds are that you'll still have your jet and support equipment in the morning. Statistics show that most thieves are looking to be in and out quickly and try not to bring any attention to themselves in the process. I'm told that a well-armed trailer, when put to the test, will send even the most skilled intruders running.

The alarm system I purchased was designed for me by a local alarm company and cost around $180, plus the 12-volt battery and installation. However it's so simple that you can do the install yourself. You can, of course, get very exotic with cameras and phone dialers and a host of other things, but in reality the siren, flashing lights and unbelievably strong locks will discourage even the most determined prowler. The system arms with a handheld pad, much like the one for your car; a simple push of the button both arms and disarms the system. The battery pulls so little energy that a trickle charge once a month is all that's needed to keep the battery up, and the system ready to go. The system cannot be disarmed from the outside by an intruder.

This whole thing has taught me a second lesson as well, what about insurance coverage? Not all insurance companies will pay when a loss of R/C equipment is reported. Some require that you list each item with them and its value, have receipts, photos and serial numbers, if available, or some sort of markings on the equipment that can't be removed. This is required so that it can be identified, if recovered. Your homeowner's policy may require you to list your jets as separate insured items because of their value. You may want to check with your agent to be sure you're covered.

The reality of all this to me was, I need to do the maximum, not the minimum, to protect my jets and anything else I carry in my trailer. This new system should help do just that.

District VIII Report

Mark Osborn

Arkansas
Louisiana
New Mexico
Oklahoma
Texas

Hello District VIII, I hope all is well.

As usual, during the time frame in which this edition of *Contrails* is written, our district has no rally activity to report on. However, an ongoing issue is the collection of JPO dues. Without its members JPO could not remain the active voice that has greatly improved our hobby and its stability. If any of you are aware of a member that has not paid their '06 dues, please lend a hand by encouraging them to do so.

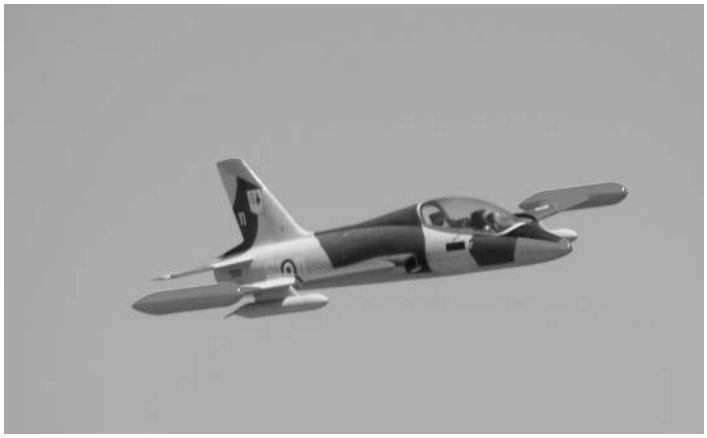
Food for thought...upon landing approach, how is the aircrafts altitude managed? A local international jet pilot explained that on approach for a landing, altitude is managed with power from the turbine, whereas the elevator is used to adjust and hold the pitch of the aircraft. Want to go up...add power, want to go down...decrease power. Practicing this procedure on the simulator will enable an R/C pilot to improve his/her landing skills. It is recommended that you practice at high altitude until you are comfortable with this procedure, paying close attention to the aircraft as it loses air speed and begins to descend, and being active with throttle management so that you don't get her too slow. Many transmitters have a landing mode function that will set the plane's pitch nose high for a landing approach, so check your manuals for details.

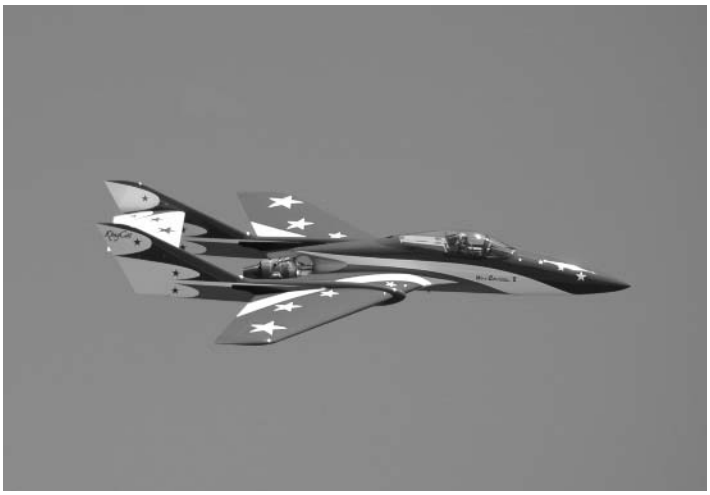
Instead of the point and dive method many of us learned while flying trainers, the POWER MANAGEMENT approach can greatly improve the pilot's ability to manage shorter runways, minimize spool up-time for a "go around," plus provide better overall stability control of the aircraft for that truly scale landing.

Mike Dancheck called me today and said that this year's traditional **T-38 Jet Rally** will be upgraded to the **JR T-38 JetFest,** sponsored by JR on August 14-20. This is an effort to replace **Superman,** and according to Mike, will be a big and fantastic event. Mike will be back in touch and I will post more details as they become available.

Well that's about it till next time, so I've enclosed a few pictures from last summer's events for your viewing pleasure.

Mark





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